

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 13, line 23, and insert the following rewritten paragraph:

In the first through fourth invention, if the predetermined part is the body of the robot, then it is particularly preferable that the posture estimated value estimated posture angle value corrected by the posture estimating means is an estimated value of an inclination angle of the body relative to the vertical direction (a sixth invention). This is because the inclination angle of the body relative to the vertical direction is especially important for a robot to stably move.

Please replace the paragraph beginning at page 58, line 19, and insert the following rewritten paragraph:

To explain the processing of S2200 in detail, based on a motion at the geometrically estimated body position determined as described above in a preceding control cycle or earlier, a geometrically estimated body acceleration, which is a second-order differential of the geometrically estimated body position, is calculated. This processing is carried out by a block 301 shown in Fig. 13. It is assumed that the processing for determining the geometrically estimated body position is carried out by a block 300 shown in Fig. 47~~13~~. Complementarily, as long as a body representative point and the position of the accelerometer coincide with each other, an estimated body posture is not necessary in calculating a geometrically estimated body acceleration (strictly speaking, the acceleration at the position of the accelerometer in the body 3 that

is geometrically estimated).